



13TH ANNUAL BUILDING CODES EDUCATION CONFERENCE

March 12 - 15, 2018
Gran Tree Inn - Bozeman, MT

Online Registration

<https://dliardsafety.regfox.com/13th-annual-building-codes-education-conference>

Parking Information

Parking space is limited in the Gran Tree Inn's parking lot, so please use the large lot located next door at the Holiday Inn as overflow parking.

Lodging Information

Room blocks are available at the Best Western Gran Tree Inn (www.bestwestern.com) or (406) 587-5261 – promo code “**BC32018**” and the Holiday Inn (www.hibozeman.com) or (406) 587-4561 – promo code “**BCC**” at the discounted government rate. Space is limited and fills up fast. Be sure register for accommodations before the room blocks close on March 1, 2018.

Continuing Education Credits

All courses offered at the conference are approved for self-reporting continuing education credits. Courses presented by ICC and CCC instructors will report your AIA credits for you if you provide your AIA number on the course sign in sheets. Please pay close attention to each course description for the type of credits available. **All other AIA credits will be self-reported.** The certificates issued for most of the courses offered at the conference will qualify for State Board of Architects licensing CE. Please be advised that the amount of CEUs awarded vary slightly by provider.

The Conference Locations

Due to the continued success of the conference, the meeting space available in one hotel simply can no longer support the growing number of participants that come to the conference. Therefore, we have had to acquire additional meeting space at the Holiday Inn, which is located directly adjacent to the Gran Tree Inn. Please pay close attention to the signs that will be posted around the Gran Tree Inn indicating which courses are being held at the Holiday Inn.

Vendor Expo and Social

The Tuesday evening Expo/Social event has continued to be a success and grows in popularity as the years progress. Do not miss this opportunity to network with hundreds of professionals operating in the fields of architecture, engineering, residential building, and commercial contracting. The Expo will also be well attended by Fire and Code Officials.

The Expo will be held on Tuesday March 13, 2018 from 1:30pm to 6:30pm. Prizes will be given away, and Hours d'oeuvres and refreshments will be served during the event.

CONTACT INFORMATION

Carrie Baker: (406) 841-2016 or cbaker@mt.gov





BUILDING CODES EDUCATION CONFERENCE COURSES

This conference is presented for **Design Professionals, Building Code Officials, Fire Officials, Residential Builders, Commercial Contractors, Inspectors, and other professionals** interested in learning about building codes and other related topics.

Monday March 12, 2018

2018 IBC Transition from the 2012 IBC

DOUG THORNBURG – FULL DAY

This full day course, provided by Doug Thornburg from ICC will assist participants in implementing the transition from the 2012 IBC to the 2018 IBC. It will include relevant changes in the 2015 IBC. This interactive training will focus on the key changes presented in the participant material. Knowledge review questions will provide opportunity for participants to discuss and consider the changes. Key differences between the 2012 IBC, 2015 IBC, and 2018 IBC will be discussed. **The certificate issued with this class qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing AIA numbers on the course sign in sheet.**

IEBC Overview

STEVE THOMAS – FULL DAY

In this full day course, Steve Thomas from Colorado Code Consulting will provide in-depth training on the use of the International Existing Building Code (IEBC). The focus will be on the fundamental requirements of the IEBC that are placed on an existing structure that undergoes repair work, alteration, renovation activity or construction of an addition, and the effect of a change in the building's occupancy classification. Steve will discuss the prescriptive requirements, work area requirements, and compliance alternative methods of evaluating work in an existing building. Topics include regulations of additions, alterations and repairs, changes of occupancy considerations, compliance alternatives and applications of the IEBC. **The certificate issued with this class qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing AIA numbers on the course sign in sheet.**

Code Requirements for Battery Storage in PV Systems

MITCH HEGMAN – HALF DAY (AM)

New battery technology and the addition of distributed generation systems such as solar PV systems and small wind turbines has spurred a significant increase in the installation and use of storage batteries and storage battery banks. Storage battery systems are becoming more common in both residential and commercial applications. In this half day course, Mitch Hegman will explore emerging technologies, such as lithium-ion batteries, and explore the various Code requirements for the safe installation and safe interactions with these systems in general. The National Electrical Code (NFPA 70), The Standard for Electrical Safety in the Workplace (NFPA 70E), and International Fire Code (IFC) requirements shall all be addressed as they relate to Storage Batteries in particular. **This course is valid for 4 hours of (CODE) CE credits for anyone with a Montana electrician's license.**

Renewable Energy (RE) System First Responder Introduction and Basics

MITCH HEGMAN – HALF DAY (PM)

There are now over 2,000 grid tied solar photovoltaic (electric) systems on-line in Montana, as well as a number of small wind turbines and an increasing number of solar heating systems. These technologies, especially solar photovoltaics, can present tactical challenges and potential safety hazards for first responders. In this half day course, Mitch Hegman will focus on the basic identification, properties and hazards of RE types, and provide a general overview of recommended emergency response procedures when energized RE systems are present at a response site. As a follow-up to this class,



NorthWestern Energy will provide more comprehensive training and/or resource materials to fire department personnel who request it at the completion of this introductory class. **This course will provide continuing education credits to building and fire officials.**

Understanding the Essentials of Effective Restaurant Fire Protection

GEORGE BRANDT – HALF DAY (AM)

During this half day course, George Brandt will provide attendees with a better understanding of the skills needed to effectively evaluate and inspect restaurant fire suppression systems. Topics include the evolution of restaurant fire suppression technology, discussion of building fire codes, NFPA standards (96, 17A, & 10) and UL 300 compliance essentials, restaurant fire suppression system design requirements, best practices for evaluating fire protection for new and unique cooking equipment, plan review, certification, and acceptance for system design and installation, and service, inspection and maintenance requirements. **In addition to providing education credits and providing a class certificate to building and fire code officials, this course qualifies as State of Montana Fire Protection License continuing education credits.**

Fire Alarm Voice Intelligibility and Occupant Notification Requirements

JOHN SWANSON – HALF DAY (AM)

In this half day course, John Swanson will specifically address the occupant notification requirements from the International Fire Code and NFPA 72. Specific occupant notification topics to be discussed include: emergency voice alarm communication systems, including voice intelligibility and visible notification; audible fire alarm requirements, temporal 3 fire alarm requirements; and visible notification appliance requirements. **In addition to providing education credits and providing a class certificate to building and fire code officials, this course qualifies as State of Montana Fire Protection License continuing education credits.**

Interfacing Fire Alarm, Sprinkler, & Elevator Functions

JOHN SWANSON – HALF DAY (PM)

In this half day course, John Swanson will provide attendees with the necessary information to ensure elevator control functions properly interface with a building fire alarm system. Topics to be discussed include: coordination of the International Building Code, International Fire Code, NFPA 72, and ASME A17.1; where initiating devices should be placed involving elevator equipment and proper signals generated at the fire alarm control panel. **In addition to providing education credits and providing a class certificate to building and fire code officials, this course qualifies as State of Montana Fire Protection License continuing education credits.**

Tuesday March 13, 2018

2018 IRC Transition from the 2012 IRC

STEVE VAN NOTE – FULL DAY

This full day course, provided by Steve Van Note from ICC, will assist participants in implementing the transition from the 2012 IRC to the 2018 IRC. It will include relevant changes in the 2015 IRC. This interactive training will focus on the key changes presented in the participant material. Knowledge review questions will provide opportunity for participants to discuss and consider the changes. Key differences between the 2012 IRC, 2015 IRC, and 2018 IRC will be discussed. **The certificate issued with this class qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing AIA numbers on the course sign in sheet.**



IBC Assessment of Alternate Methods and Materials

STEVE THOMAS – FULL DAY

In this full day course, Steve Thomas provides a solid background in the application of the alternative provisions contained in International Building Code (IBC) Section 104.11. The first portion of the class will dissect the IBC to derive the base intent behind the prescriptive code requirements used to justify a 104.11 alternate assessment. The second portion of the class will look at sustainable alternative construction methods such as earth ship, straw bale, cob, cordwood, etc. Students will apply the requirements of 104.11 to each of these techniques to determine if the intent of the code is met. The instructor will also discuss “easy” qualification of alternates by using ICC Evaluation Services acceptance criteria and Evaluation Reports. Examples at the U.S. Department of Energy’s (NREL) 2007 Solar Decathlon will be used to help illustrate real world application of the alternates assessment process for some of the most innovative and advanced construction found in a U.S. “jurisdiction”. **The certificate issued with this class qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing proper submission of AIA number on the course sign in sheet.**

2018 IMC/IFGC Transition from the 2012 IMC/IFGC

SAM DARDANO – FULL DAY

In this full day course, Sam Dardano from ICC will assist participants in implementing the transition from the 2012 IMC and IFGC to the 2018 IMC and IFGC. It will include material relevant to the changes in the 2015 IMC and IFGC. This interactive training will focus on the key changes presented in the participant material. Small group activities and knowledge review questions will provide ample opportunity for participants to discuss and consider the changes. **Each class participant will receive a certificate of attendance. Additionally, provider will report AIA credits for attendees providing AIA numbers on the course sign in sheet.**

2018 IFC Transition from the 2012 IFC

JOHN SWANSON – FULL DAY

In this full day course, John Swanson will provide attendees with the significant changes to the 2018 edition of the International Fire Code (IFC). Changes from the 2012 and 2015 editions of International Fire Code will also be discussed. Topics covered include: new definitions, reformatting of some chapters, fire protection and life safety systems, means of egress and hazardous materials. **In addition to providing education credits and providing a class certificate to building and fire code officials this course qualifies as State of Montana Fire Protection License continuing education credits.**

Wednesday March 14, 2018

2018 IBC Transition from the 2012 Structural Provisions

SANDRA HYDE – HALF DAY (AM)

For building departments, engineers, architects and contractors interested in the structural changes to the 2015 and 2018 IRC, Sandra Hyde from ICC will provide an overview of the structural changes in Chapters 16-23 of the 2015 and 2018 IBC. The class identifies changes in organization and code requirements and the applicability of these requirements to design, plan review and inspection. **The certificate issued with this class qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing AIA numbers on the course sign in sheet.**

Structural Loads and Load Paths

SANDRA HYDE – HALF DAY (PM)

In this half day course, Sandra Hyde will discuss the direction in which each consecutive load will pass through connected



members. The sequence commences at the highest point of the structure working all the way down to the footing system, ultimately transferring the total load of the structure to the foundation. The direction that loads are transferred through a structure is important and must be identified. With a focus on connections, the course considers moment frame, braced frame and shear wall load paths in selecting a particular structural frame for a single story, low-rise or mid-rise building. Topics to be discussed include common gravity and lateral loads, critical connections in load paths, and how load paths in a braced frame differ from load paths through shear walls. **The certificate issued with this class qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing AIA numbers on the course sign in sheet.**

2018 IBC Fire and Smoke Protection Features

DOUG THORNBURG – FULL DAY

In this full day course, Doug Thornburg will address the critical concepts of the 2018 International Building Code (IBC) regarding Chapter 7, Fire and Smoke Protection Features. These concepts provide a basis for the analysis and identification of which components require fire-resistance ratings; where the fire-resistance-rated construction is required in building construction; where smoke-resistant construction is mandated; and the use of fire door assemblies, fire window assemblies, penetration firestop systems, fire dampers and smoke dampers. **The certificate issued with this class qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing AIA numbers on the course sign in sheet.**

IRC Plan Review

STEVE THOMAS – FULL DAY

During this full day course, Steve Thomas will provide a broad overview of the process for residential plan review, this course covers the basic steps involved to complete a comprehensive review of a residence. The class will discuss the tools and process for conducting a residential plan review. It will also increase awareness of the necessary items required to insure code compliance of the homes built in Montana. **The certificate issued with this class qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing proper submission of AIA number on the course sign in sheet.**

Hazardous Material Requirements of the IFC and IBC

JOHN SWANSON – HALF DAY (AM)

In this half day course, John Swanson will provide attendees with the requirements from the 2018 International Building Code (IBC) section 907 along with the significant changes to the 2016 edition of NFPA 72. Topics to be discussed include: when fire alarm systems are required based on occupancy classifications; why some occupancies have fire alarm requirements and others do not; dedicated function fire alarm systems; occupant notification systems, including emergency voice alarm communication systems, audible appliances and visible appliances, and significant changes to the 2016 edition of NFPA 72 impacting code officials, fire alarm designers and contractors. **In addition to providing education credits and providing a class certificate to building and fire code officials, this course qualifies as State of Montana Fire Protection License continuing education credits.**

Balancing Security with Fire/Life Safety in Educational Occupancies

JOHN SWANSON – HALF DAY (PM)

During this half-day course, John Swanson will address concerns that have arisen regarding recent shootings and security incidents in school buildings around the United States. The need for security in educational occupancies has never been more prevalent. However, security often contradicts with fire and building code requirements for free and unobstructed egress from a space. This course will provide code officials and design professionals with information to consider when evaluating security related issues from a fire and life safety perspective. The course will show that it is possible to meet



both security and fire and life safety at the same time. Topics to be discussed include: IFC requirements for lockdown drills, considerations when reviewing security devices/products, types of locking devices permitted/not permitted by the codes; and considerations when using intruder alarms or an emergency voice alarm communication system during security incidents. **In addition to providing education credits and providing a class certificate to building and fire code officials, this course qualifies as State of Montana Fire Protection License continuing education credits.**

UPC Significant Changes – 2012-2018

JED SCHEUERMANN – FULL TWO (2) DAY COURSE – CONT. ON THURSDAY

In this two-day (16 hour) comprehensive overview, Jed Scheuermann from IAPMO will examine changes from the 2012 UPC to the 2018 edition. The course will also cover what occurred during the 2015 UPC code cycle that was not adopted by Montana. Photographs, drawings, specifications and similar resources will graphically illustrate plumbing code concepts. Existing and new Montana state plumbing amendments to model code will also be considered. This course will continue on Thursday. **In addition to providing education credit and providing a class certificate to building officials and inspectors, the certificate issued with this class qualifies as continuing education credits for the State of Montana Board of Plumbers.**

Thursday March 15, 2018

2012 IRC Wood Wall Bracing Provisions

SANDRA HYDE – FULL DAY

In this full day seminar, Sandra Hyde with ICC will provide a comprehensive explanation of the 2012 International Residential Code (IRC) bracing requirements. The seminar will focus on basic requirements and clarify the application of wall bracing provisions in the IRC wall bracing Sections R602.10 thru R602.12. Topics to be discussed are forces that act on a house, the history of bracing and how it works, physical limits under which bracing can be used, and special considerations for bracing. **The certificate issued with this class qualifies for ICC education credit and qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing AIA number on the course sign in sheet.**

IBC Advanced Accessibility

STEVE THOMAS – FULL DAY

This full day course, presented by Steve Thomas, is devoted to advanced accessibility requirements using the International Building Code (IBC) and ICC/ANSI A117.1 standard. Topics will include scoping for accessible design, compliance paths for existing buildings, and Accessible Type A and Type B residential requirements. New design methods not fully addressed by the IBC will also be discussed. The class will provide Federal accessibility background to help the student negotiate the maze of regulations and their base intent in the IBC. **The certificate issued with this class qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing AIA numbers on the course sign in sheet.**

UPC Significant Changes – 2012-2018

JED SCHEUERMANN – FULL TWO (2) DAY COURSE - CONT. FROM WEDNESDAY

Continued from Wednesday - In this two-day (16 hour) comprehensive overview, Jed Scheuermann from IAPMO will examine changes from the 2012 UPC to the 2018 edition. The course will also cover what occurred during the 2015 UPC code cycle that was not adopted by Montana. Photographs, drawings, specifications and similar resources will graphically illustrate plumbing code concepts. Existing and new Montana state plumbing amendments to model code will also be considered. **In addition to providing education credit and providing a class certificate to building officials and inspectors, the certificate issued with this class qualifies as continuing education credits for the State of Montana Board of Plumbers.**



Commercial Energy Code: Overview and Changes

KEN BAKER – HALF DAY (AM)

This half-day course will provide an overview of the 2018 International Energy Conservation Code (IECC) with emphasis on the changes between this latest version of the IECC and the 2012 edition, the current Montana energy code. Architects, designers, contractors, and building officials/inspectors will learn how the state's adoption of the 2018 IECC will impact construction projects. Presenter: Ken Baker, Senior Manager Codes and Standards, Northwest Energy Efficiency Alliance.

The certificate issued with this class qualifies for ICC education credit and qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing proper submission of AIA number on the course sign in sheet.

Residential Energy Code: 2018 IECC Challenges and Opportunities

JAIME OLDMIXON – HALF DAY (PM)

This half-day session will provide a review to builders, designers, contractors, and building officials/inspectors. The session will include the following topics: 1) Residential Energy Code Update – What is new in the 2018 energy code; 2) Performance Testing – How it works with emphasis on multi-family buildings; 3) Energy Rating index – A new compliance alternative. Presenter: Jaimie Oldmixon, HERS Rater Trainer and Builder. **The certificate issued with this class qualifies for ICC education credit and qualifies for Montana State Board of Architects licensing CE. Additionally, provider will report AIA credits for course attendees providing proper submission of AIA number on the course sign in sheet.**

| | ROOM 1 | ROOM 2 | ROOM 3 | ROOM 4 | ROOM 5 |
|---|---|--|--|---|--|
| Monday, March 12th | | | | | |
| 8AM - 12PM | 2018 IBC Transition from the 2012 IBC | IEBC Overview | Code Requirements for Battery Storage for PV Systems | Fire Alarm Intelligibility & Occupant Notification Requirements | Understanding the Essentials of Effective Restaurant Fire Protection |
| LUNCH 12PM - 1PM | | | | | |
| 1PM - 5PM | 2018 IBC Transition from the 2012 IBC (Continued) | IEBC Overview (Continued) | Renewable Energy System First Responder Intro & Basics | Interfacing Fire Alarm, Sprinkler, & Elevator Functions | |
| Tuesday, March 13th | | | | | |
| 8AM - 12PM | 2018 IRC Transition from the 2012 RIC | IBC Assessment of Alternate Methods & Material | 2018 IMC/IFGC Transition from the 2012 IMC/IFGC | 2018 IFC Transition from the 2012 IFC | |
| LUNCH 12PM - 1PM | | | | | |
| 1PM - 5PM | 2018 IRC Transition from the 2012 RIC (Continued) | IBC Assessment of Alternate Methods & Material (Continued) | 2018 IMC/IFGC Transition from the 2012 IMC/IFGC (Continued) | 2018 IFC Transition from the 2012 IFC (Continued) | |
| EXPO SOCIAL 4:30 PM - 7PM | | | | | |
| Wednesday, March 14th | | | | | |
| 8AM - 12PM | 2018 IBC Transition from the 2012 Structural Provisions | IRC Plan Review | 2018 UPC Transition from the 2012 UPC - 2 day course | 2018 IBC Fire and Smoke Protection Features | Hazardous Material Requirements of the IFC and IBC |
| LUNCH 12PM - 1PM | | | | | |
| 1PM - 5PM | Structural Loads and Load Paths | IRC Plan Review (Continued) | 2018 UPC Transition from the 2012 UPC - 2 day course (Continued) | 2018 IBC Fire and Smoke Protection Features (Continued) | Balancing Security with Fire/Life Safety in Educational Occupancies |
| MONTANA ICC CHAPTER MEETING 5PM | | | | | |
| Thursday, March 15th | | | | | |
| 8AM - 12PM | 2012 IRC Wood Wall Bracing Provisions | IBC Advanced Accessibility | 2018 UPC Transition from the 2012 UPC - 2 day course continued | Commercial Energy Code: Overview and Changes | |
| LUNCH 12PM - 1PM | | | | | |
| 1PM - 5PM | 2012 IRC Wood Wall Bracing Provisions (Continued) | IBC Advanced Accessibility (Continued) | 2018 UPC Transition from the 2012 UPC - 2 day course continued (Continued) | Residential Energy Code: 2018 IECC Challenges and Opportunities | |